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BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH	**CO-OP'S OBJECTION TO WATER USERS' REQUEST FOR HEARING; CO-OP'S REQUEST FOR DISCOVERY; AND MOTION TO CONTINUE HEARING** Docket No. 95-025 Cause No. ACT/015/025

Co-op Mining Company (Co-op) objects to Water Users' September 10, 1997 Joint Objection to Renewal, Appeal, and Request for Hearing on the grounds Water Users are not entitled to a hearing under the Board's administrative rules. Good cause exists to continue any hearing for a reasonable time, until Co-op has obtained a ruling on the collateral estoppel effect of the current record, and if necessary to afford Co-op a reasonable time to conduct needed discovery. Co-op moves to continue the hearing presently set for October 22, 1997 in order that Co-op may have Water Users' standing determined before having to prepare for a hearing. In the event the Board determines to go forward on the merits, Co-op requests an opportunity to conduct discovery before the hearing is rescheduled.

As to the bulk of the substantive argument raised by Water Users, Co-op incorporates by reference in its entirety Co-op's May 8, 1997 Closing Argument in the DOGM informal conference in this matter (copy attached).

ARGUMENT

I. WATER USERS ARE NOT ENTITLED TO A HEARING.

Water Users base their hearing request on R645-300-211, which provides:

> Within 30 days after an applicant or permittee is notified of the decision of the Division concerning ... a permit renewal, ... any person with an interest which is or may be adversely affected may request a hearing on the reasons for the decision, in accordance with R645-300-200.

Co-op objects to Water Users' request for a hearing. Unless Water Users have an interest that may be adversely affected, they lack standing to request a hearing. Water Users' standing is based solely on their contention that Big Bear Spring and Birch Spring are hydrologically connected with Co-op's permit area. That issue was resolved through Co-op's application to mine the Tank seam. There, the Board determined the permit area was hydrologically isolated from the springs, that the springs had not been adversely affected by Co-op's mining operation, and that Co-op's permit was complete and in compliance with all statutory requirements. The Utah Supreme Court affirmed the Board's decision. Those issues, which are conclusive as to Water Users' standing to request a Board hearing, have already been decided against Water Users.

A. THIS MATTER SHOULD BE REMANDED TO DOGM FOR A RULING ON COLLATERAL ESTOPPEL.

Co-op's permit was renewed on May 20, 1991, and amended on June 14, 1995 to allow mining the Tank seam. On June 16, 1995 Co-op applied to renew its permit, which DOGM approved. In response to Water Users' objection, on February 23, 1996 the Board remanded Co-op's permit renewal to DOGM for an informal conference. In its Order, the Board stated:

> The Board does not express any opinion at this time ... as to legal issues raised by the Mining Company in its Memorandum in Opposition concerning the alleged res judicata and/or collateral estoppel effect of any prior ruling by the Board concerning the Bear Canyon Mine. All of the foregoing issues shall be considered in the first instance by the Division, if they are raised at the informal conference requested by the Objectors, so they are not yet ripe for Board review and/or action.

[Order Granting Temporary Relief and Remanding for an Informal Conference, p. 4 ¶ 7] By the express terms of that Order, DOGM was to consider the collateral estoppel issue in the first instance by DOGM before the Board took further action. Despite the Board's order, DOGM still has not yet ruled on that issue. Until it does so, this matter is not yet ripe for Board review.

The August 11, 1997 Division Order shows Co-op raised the issue:

> Co-op's arguments are as follows:
>
> 1. The claims and assertions made by the Water Users in this proceeding are barred by the doctrine of collateral estoppel and the decision of the Utah Supreme Court in Castle Valley Special Service District, et al v. Utah Board of Oil, Gas and Mining, et al filed on December 31, 1996.
>
> *(Findings of Fact)*
>
> 4. On June 13, 1995, the Board affirmed the Division approval of the permit revision and rejected the Water Users' arguments, finding that the mined areas were hydrologically separate from the Water Users' springs and that the mining was not adversely affecting the springs. The Water Users appealed to the Utah Supreme Court, which in a December 31, 1996 Opinion affirmed the Board's Order.
>
> 5. On June 16, 1995, Co-op filed a permit renewal application for the Bear Canyon Mine. On October 12, 1995, the Water Users filed Objections .... Co-op appeared during the Board's review of the Water Users' Objections and argued that the matter had been resolved by the previous proceedings and 3was therefore res judicata.
>
> 7. Co-op argues, and the Board and Division have previously found, that the area which is being mined is effectively hydrologically isolated from the Water Users' springs.

Rather than make any ruling on collateral estoppel, however, DOGM skirted the issue, went on to consider on the merits all matters raised in the informal conference, and ordered:

> The Division believes that the new information and analyses made available through the efforts of both the Water Users and Co-op lends additional support to, rather than undermines, the Division's earlier conclusion that there is no effective hydrologic connection between the mine and the Water Users' springs, and that the mining activities are not causing material damage to the hydrologic balance outside the permit area. Co-op's mining permit is therefore renewed.

Co-op raised the collateral estoppel issue before DOGM in the informal conference. Although DOGM's Order includes findings of all the elements establishing collateral estoppel, DOGM failed to take the necessary final step of ruling that collateral estoppel applies. Pursuant to the Board's February 23, 1996 Order, the Board should remand this matter back to DOGM for a determinative ruling on that point.

B. WATER USERS' OBJECTIONS ARE BARRED BY COLLATERAL ESTOPPEL.

The Board now has the benefit of both DOGM's Order from the informal conference and the Castle Valley Supreme Court decision. If the Board determines not to remand this matter to DOGM for further proceedings, the Board should itself order that Water Users' claims are barred by collateral estoppel, and deny Water Users' request for hearing.

In approving Co-op's request to mine the Tank Sean, after a full evidentiary hearing where Co-op, not Water Users, bore the burden of proof, the Board entered a final Decision, finding, among other things:

- Big Bear Spring is hydrologically isolated from the permit area.
- Birch Spring is hydrologically isolated from the permit area.
- The baseline and other data in Co-op's permit is adequate.
- Co-op's permit application was complete and the requirements of the Utah Coal Mining and Reclamation Act and associated regulations have been complied with.
- Co-op need not prospectively identify a replacement water source.

On December 31, 1996, after DOGM began its informal conference, the Utah Supreme Court unanimously affirmed the Board's Decision. In Castle Valley Special Service Dist. *et al* v. Utah Board of Oil, Gas and Mining, 938 P.2d 248 (Utah 1996) (copy attached), the Court found:

> The Board's order affirmed the Division's approval of the permit revision and declined to impose the additional conditions. In the accompanying findings of fact and conclusions of law, the Board stated that the Blind Canyon seam was hydrologically separate from the springs and that Co-Op's prior mining operations had not affected the springs. [Castle Valley, 938 P.2d at 251]
> ... At the hearing the Board received evidence from Water Users supporting their theory of an interconnected water system joining the permit area and the springs, and from Co-Op and the Division supporting the contrary theory that the springs and the permit area are in separate water systems. The Board found that there was no connection, and that Water Users had failed to prove that Co-Op has in fact damaged the springs. [Id. at 253]
> During the hearing Water Users introduced a broad range of evidence about the geology and hydrology of the permit and spring area, including evidence relating to the Blind Canyon seam. Water Users argued that this evidence was relevant to the effect of mining the Tank seam for several reasons, all of which in some way relied on the theory that the Blind Canyon seam and the springs were part of a single connected water system. Despite multiple objections by Co-Op and the Division, none of Water Users' offered evidence was excluded as irrelevant. After Water Users concluded their evidentiary case, Co-Op and the Division responded with evidence showing that the springs and the coal seams were in fact in separate water systems and that as a result neither the past nor the proposed future mining activities could affect the springs. [Id. at 253]

> ... [T]he validity of these [Water Users'] objections to the permit revision depends on conclusions about the nature of the Blind Canyon seam – what relationship there is between the Tank and the Blind Canyon seams and whether a hydrologic link exists between the Blind Canyon seam and the springs.
> In sum, Water Users presented arguments and evidence in the Tank permit revision proceedings that related to Blind Canyon seam conditions. ... That the Board might have disposed of these ultimate issues on a narrower set of facts does not make it improper or unfair to include additional or alternative findings that respond to the bulk of the parties' argument and evidence and that give additional support for its decision. [Id. at 254-55]

The Board's Tank seam Decision, the Utah Supreme Court's Castle Valley Opinion, and the comments in DOGM's Decision on the question lead to the inescapable conclusion Water Users' objections and request for hearing are barred by collateral estoppel. *See* attached Closing Argument, point I, attached hereto and incorporated by reference.

Co-op has already definitively established that the permit area and the springs are in separate water systems, and that the underground effects of Co-op's mining cannot adversely affect the springs. Water Users have exhausted their administrative and judicial appeals of that issue.

Collateral estoppel is the law in Utah. It is not a matter either courts or administrative agencies can choose to apply or ignore as they wish. If, as here, the elements are met, the law conclusively bars the Board from permitting relitigation of the same issue. Because the linchpin of Water Users' claim for standing has been resolved against them, their objections should be overruled and their request for hearing should be denied.

II. CO-OP SHOULD BE ALLOWED TO CONDUCT DISCOVERY.

In the event the Board still finds it necessary to conduct a formal evidentiary hearing on the merits, Co-op moves the Board to authorize Co-op to conduct discovery in preparation of its case. R645-300-212.300 provides, "The hearing will be conducted by the Board under the terms of the R641 Rules." R 6411108-900 provides:

> Upon the motion of a party and for good cause show, the Board may authorize such manner of discovery against another party ... as may be prescribed by and in the same manner provided by the Utah Rules of Civil Procedure.

By examining the surface at Big Bear Spring and its environs, among other things, Co-op's experts have come to an opinion that Big Bear Spring is essentially a shallow spring, is susceptible to surface runoff, and may be fed in large part from surface fractures intercepting surface water including water from Bear Creek. Water Users to date challenge whether this is the case, but so far have come forward with no direct evidence to controvert this opinion. Good cause exists to allow Co-op to conduct discovery on this point, and to allow, under Rule 34(a)(2) of the Utah Rules of Civil Procedure, entry by Co-op to Big Bear Spring for the purpose of inspection, testing and sampling, to gather further evidence to support this opinion of Co-op's experts.

Water Users have previously testified briefly as to their development of Birch Spring. Based on that testimony, an examination of the site, and other things, Co-op's experts have formed an opinion that flow at Birch Spring is largely dependent on the efficiency and quality of the collection system installed by Water Users, and that the decline in spring flow may be due to deterioration of the collection system. Good cause exists to allow Co-op to conduct discovery on this point, and to allow, under Rule 34(a)(2), entry by Co-op to Birch Spring for the purpose of inspection, testing and sampling, to gather further evidence to support this opinion of Co-op's experts.

Co-op also requests leave to conduct discovery of Water Users and their experts, to discover their opinions and the basis for those opinions, and to determine whether Water Users intend to present evidence different from or additional to that presented at the DOGM informal hearing, in order for Co-op adequately to meet that evidence at the Board's hearing.

CONCLUSION

For the reasons stated above, the Board should grant the relief requested by Co-op.

DATED this 2 day of October, 1997.

Mark Hansen
Attorney for Co-op Mining Company

CERTIFICATE OF SERVICE

I certify on October 2, 1997 I served the above document by first class mail to:

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1

Stephen E. HAUSKNECT, Petitioner,

v.

KENNECOTT CORPORATION and Industrial Commission of Utah, Respondents.

Nos. 940504, 930768–CA, 92–0393.

Supreme Court of Utah.

May 29, 1996.

Prior report: Utah App., 882 P.2d 683.

ORDER

This matter is dismissed on the court's own motion, as certiorari was improvidently granted.

/s/ Michael D. Zimmerman
Michael D. Zimmerman
Justice
For the Court

2

CASTLE VALLEY SPECIAL SERVICE DISTRICT, North Emery Water Users Association, and Huntington–Cleveland Irrigation Company, Petitioners,

v.

UTAH BOARD OF OIL, GAS and MINING, Respondent.

C.W. Mining Co. dba Co–Op Mining Company, Intervenor.

No. 950487.

Supreme Court of Utah.

Dec. 31, 1996.

Rehearing Denied May 19, 1997.

Water providers petitioned for judicial review of order of Board of Oil, Gas and Mining denying providers' petition to amend previous order affirming grant of revision to coal mining company's underground coal mining permit, objecting to certain findings of fact and conclusions of law and Board's refusal to order company to identify and provide water resources to ameliorate alleged harm to providers' springs caused by company's mining. The Supreme Court, Stewart, Associate C.J., held that: (1) federal Surface Mining Control and Reclamation Act (SMCRA) provision governing subsidence does not authorize Board to require water resource identification as preventative measure before any water supplies have been adversely affected by underground coal mining operations; (2) Board correctly concluded that Act provision governing subsidence did not apply so as to require company to provide water replacement for providers' springs, given providers' failure to establish that water sources had been affected by underground coal mining operations; (3) Board's findings and conclusions related to coal seam already covered by company's permit did not exceed Board's jurisdiction; (4) providers' right to notice and fair hearing was not violated for due process purposes when Board made findings and conclusions as to coal seam already covered by permit; and (5) Board did not act arbitrarily and capriciously in using evidence relating to coal seam already covered by permit in making its findings of fact and conclusions of law.

Affirmed.

1. Administrative Law and Procedure ⇐669.1

Mines and Minerals ⇐92.21

On judicial review of Board of Oil, Gas and Mining order denying water providers' petition to amend previous order affirming grant of revision to coal mining company's underground coal mining permit, Supreme Court would not address issue of whether Board's findings would collaterally estop providers in separate permit renewal proceeding on any issues in permit revision proceeding, as issue could be decided only in proceeding in which issue was raised.

2. Mines and Minerals ⇐92.21

Supreme Court would review for correctness question of statutory construction as to ruling of Board of Oil, Gas and Mining that federal Surface Mining Control and Reclamation Act (SMCRA) provision governing subsidence was inapplicable to water providers because they had failed to prove that their springs had been affected by coal mining company's mining, on review of Board order denying providers' petition to amend previous order affirming grant of revision to company's underground coal mining permit. Surface Mining Control and Reclamation Act of 1977, § 720, as amended, 30 U.S.C.A. § 1309a.

3. Mines and Minerals ⇐92.5(2)

Federal Surface Mining Control and Reclamation Act (SMCRA) provision governing subsidence does not authorize Board of Oil, Gas and Mining to require water resource identification as preventive measure before any water supplies have been adversely affected by underground coal mining operations; provision deals only with water replacement and not with water source identification, and there must be showing that water supply has been affected by underground coal mining operations for statute to impose requirement of replacement. Surface Mining Control and Reclamation Act of 1977, §§ 720, 720(a)(2), as amended, 30 U.S.C.A. §§ 1309a, 1309a(a)(2).

4. Mines and Minerals ⇐92.5(2)

Board of Oil, Gas and Mining correctly concluded that federal Surface Mining Control and Reclamation Act (SMCRA) provision governing subsidence did not apply so as to require coal mining company to provide water replacement for water providers' springs as remedy for past damage, given providers' failure to establish that water sources had been affected by underground coal mining operations, in proceedings in which Board affirmed grant of revision to company's underground coal mining permit, where Board found that there was no connection between springs and mine, and that providers had failed to prove that company had damaged springs. Surface Mining Control and Reclamation Act of 1977, § 720, as amended, 30 U.S.C.A. § 1309a.

5. Mines and Minerals ⇐92.17

Board of Oil, Gas and Mining's findings of fact and conclusions of law related to coal seam already covered by coal mining company's underground coal mining permit did not exceed Board's jurisdiction in proceedings in which Board affirmed grant of revision to company's permit to allow company to mine additional seam, despite contention that hearing notice referred only to additional seam and that Board ruled that scope of hearing would be limited to additional seam; notice requirement went to jurisdiction over parties, not over subject matter, Board had subject matter jurisdiction in ruling on ultimate issue of permit revision for additional seam, and contested findings and conclusions were relevant to Board's rulings on ultimate issues. U.C.A.1953, 40–10–2, 40–10–6(4).

6. Mines and Minerals ⇐92.17

Hearing notice requirement went to jurisdiction over parties, not over subject matter, in proceedings in which Board of Oil, Gas and Mining affirmed grant of revision to coal mining company's underground coal mining permit. U.C.A.1953, 40–10–2, 40–10–6(4).

7. Mines and Minerals ⇐92.16

Board of Oil, Gas and Mining had subject matter jurisdiction in ruling on ultimate issue of revision of coal mining company's underground coal mining permit to allow company to mine additional coal seam, in proceedings in which Board affirmed grant of revision to permit. U.C.A.1953, 40–10–2, 40–10–6(4).

8. Administrative Law and Procedure ⇐447.1

Courts ⇐4

"Subject matter jurisdiction" goes to competence of body to resolve certain dispute.

See publication Words and Phrases for other judicial constructions and definitions.

9. Constitutional Law ⇐287.1
Mines and Minerals ⇐92.17

Water providers' right to notice and fair hearing was not violated for due process purposes when Board of Oil, Gas and Mining made findings of fact and conclusions of law as to coal seam already covered by coal mining company's underground coal mining permit, in proceedings in which Board affirmed grant of permit revision to allow company to mine additional seam, despite contention that hearing notice referred only to additional seam and that Board ruled that scope of hearing would be limited to additional seam; providers presented arguments and evidence relating to covered seam conditions, Board considered evidence and ruled on ultimate issues of whether to allow additional seam mining and whether to require company to provide replacement water or identify replacement water sources, and that Board might have disposed of ultimate issues on narrower set of facts did not make it improper or unfair to include additional or alternative findings. U.S.C.A. Const.Amend. 14; Surface Mining Control and Reclamation Act of 1977, § 720, as amended, 30 U.S.C.A. § 1309a.

10. Mines and Minerals ⇐92.10

Water providers' argument, that granting revision to coal mining company's underground coal mining permit to allow company to mine additional coal seam would extend life of overall mining operation and thus extend duration of harm caused by existing mining operations, lacked substantial relevance in proceedings in which Board of Oil, Gas and Mining affirmed grant of permit revision, as denial of permit revision would not end existing mining operations.

11. Mines and Minerals ⇐92.17

Board of Oil, Gas and Mining did not act arbitrarily and capriciously in using evidence relating to coal seam already covered in coal mining company's underground coal mining permit in making its findings of fact and conclusions of law in proceedings in which Board affirmed grant of revision to permit to allow company to mine additional coal seam, as evidence was relevant to Board's rulings on ultimate issues of whether to allow mining of additional seam and whether to require company to provide replacement water to remedy claimed harm to providers' springs or to identify replacement water sources. Surface Mining Control and Reclamation Act of 1977, § 720, as amended, 30 U.S.C.A. § 1309a.

James L. Warlaumont, Jeffrey W. Appel, Benjamin T. Wilson, Salt Lake City, for Castle Valley.

J. Craig Smith, David B. Hartvigsen, Salt Lake City, for North Emery and Huntington–Cleveland.

Jan Graham, Atty. Gen., Thomas A. Mitchell, Patrick J. O'Hara, Asst. Attys. Gen., Salt Lake City, for Board of Oil, Gas & Mining.

F. Mark Hansen, Carl E. Kingston, Salt Lake City, for Co–Op Mining.

STEWART, Associate Chief Justice:

Petitioners Castle Valley Special Service District, North Emery Water Users Association, and Huntington–Cleveland Irrigation Company (collectively, Water Users) seek review of an order of the Utah Board of Oil, Gas and Mining (Board) denying Water Users' petition to amend a previous order and its accompanying findings of fact and conclusions of law. The Board entered the first order following a hearing in which Water Users sought reversal of the grant of a revision of intervenor Co–Op Mining Company's (Co–Op) coal mining permit by the Division of Oil, Gas and Mining (Division). Water Users object to (1) certain findings of fact and conclusions of law made by the Board in support of its order affirming the permit revision grant, and (2) the Board's refusal to order Co–Op to identify and provide water resources to ameliorate alleged past and future harm to Water Users' springs caused by Co–Op's mining.

[1] The events leading to our review of Water Users' petition began when Co–Op applied to the Division for a significant revision of its underground coal mining permit. Under this permit, Co–Op was mining a layer or seam of coal known as the Blind Canyon seam that is located in Emery County.

The requested revision would permit Co–Op to mine another layer of coal, the Tank seam, located within the existing permit area about two hundred feet above the Blind Canyon seam. The validity of the existing permit was not at issue in the hearings held on the revision request. A renewal application for that permit was later submitted to the Division in separate proceedings. Water Users have expressed concern that some of the Board's findings and conclusions would collaterally estop them in the permit renewal hearing, and this appears to be the primary motivation for contesting those findings and conclusions. However, whether the challenged findings would collaterally estop Water Users on any issues in the permit revision proceeding can be decided only in the proceeding in which the issue is raised. We therefore do not address that issue here.

I

Water Users include a special service district, a nonprofit water users association, and a mutual irrigation company, and they provide water for culinary and irrigation purposes in northern Emery County. The bulk of this water comes from two springs, Birch Spring and Big Bear Spring, which are located near Co–Op's mine but just outside the permit area. Water Users opposed the Tank seam revision, claiming that Co–Op's mining has reduced the quantity and quality of water from these springs. The Division approved the revision. Water Users appealed to the Board, arguing that the revision application was defective in failing to recognize and address ongoing harm to the springs from Blind Canyon mining and that the extension of mining operations into the Tank seam would continue and increase that harm. Water Users asked the Board to deny the permit revision or, alternatively, to condition the revision on the requirements (1) that Co–Op "provide, at no expense, replacement water to [Water Users] to mitigate the adverse impacts of its mining activity" on the springs and (2) that Co–Op "implement adequate procedures to protect these water sources from contamination." Co–Op denied that its mining activities had affected the springs.

The Board's order affirmed the Division's approval of the permit revision and declined to impose the additional conditions. In the accompanying findings of fact and conclusions of law, the Board stated that the Blind Canyon seam was hydrologically separate from the springs and that Co–Op's prior mining operations had not affected the springs. Water Users petitioned the Board to strike these findings and conclusions and to require Co–Op to identify replacement water sources.[1] The Board declined to do so. We granted Water Users' petition for review.

II

We turn first to the replacement water issue: whether the Board erred in refusing to order, under 30 U.S.C.A. § 1309a (West Supp.1996), Co–Op to either (1) identify or (2) actually provide water resources to replace spring water that had been or might be diverted or contaminated as a result of Co–Op's mining. The regulation of surface and underground coal mining is governed generally by the federal Surface Mining Control and Reclamation Act (Surface Mining Act or Act), Pub.L. No. 95–87, 91 Stat. 445 (1977) (codified as amended at 30 U.S.C. §§ 1201–1328). The Surface Mining Act establishes procedures for the issuance of mining permits and detailed standards for the conduct of mining operations, including standards designed to limit the impact of mining on water resources. However, the Act permits a state to undertake primary responsibility for regulating mining, subject to oversight by the federal Office of Surface Mining, by enacting a state regulatory program at least as stringent as the requirements set forth in the Act. 30 U.S.C. § 1253 (1988). State statutes and regulations thus become the direct authority for regulating coal mining. Utah has qualified for primary enforcement authority. *See*

1. Water Users' petition for modification described the issue presented to the Board at the hearing as whether to direct water replacement remedies (identification or provision of replacement sources) for impacts which might result from Tank seam operations. In their original petition to the Board, Water Users asserted that they needed these remedies in part because of harm from existing operations.

30 C.F.R. § 944.10 (1996) (approving Utah's coal mining program effective January 1981).

Water Users asked the Board to order replacement water on the authority of 30 U.S.C.A. § 1309a(a)(2), a relatively recent addition to the Surface Mining Act.[2] In relevant part, section 1309a(a) provides:

> § 1309a. Subsidence
>
> (a) Requirements
>
> Underground coal mining operations conducted after October 24, 1992, shall comply with each of the following requirements:
>
> . . . .
>
> (2) Promptly replace any drinking, domestic, or residential water supply from a well or spring in existence prior to the application for a surface coal mining and reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations.
>
> Nothing in this section shall be construed to prohibit or interrupt underground coal mining operations.

30 U.S.C.A. § 1309a (West Supp.1996). Following enactment of 30 U.S.C.A. § 1309a, the Utah Legislature adopted a provision closely tracking the language of another portion of 30 U.S.C.A. 1309a, but it did not include a provision corresponding to subsection (a)(2). *Compare* 30 U.S.C.A. § 1309a(a)(1) *with* Utah Code Ann. § 40–10–18(4) (Supp.1996). Despite this difference, the Office of Surface Mining approved section 40–10–18(4) as an amendment to Utah's coal mining program. 30 C.F.R. § 944.15(ff)(1996) (approval effective July 1995). Water Users' argument that they are entitled to replacement water therefore rests on 30 U.S.C.A. § 1309a rather than on Utah law.

[2] The Board rejected Water Users' request for identification and/or provision of replacement water. The Board ruled that section 1309a was inapplicable to Water Users because they had failed to prove that their springs had been affected by Co–Op's mining. We review this question of statutory construction for correctness. *Bennion v. Graham Resources, Inc.*, 849 P.2d 569, 570 (Utah 1993). The Board also "question[ed] whether" it had jurisdiction to enforce the federal statute in any event. Because we conclude that section 1309a did not apply, we need not address the question of the Board's authority to enforce it. *See Williams v. Public Serv. Comm'n*, 754 P.2d 41, 50 n. 9 (Utah 1988) (court may ignore jurisdictional issue and reach the merits if the result is the same as a finding of no jurisdiction).

In applying section 1309a, the Board was faced with two questions: (1) whether the section authorizes the Board to require water resource identification as a preventive measure before any water supplies have been adversely affected and (2) whether Co–Op's existing mining operations have harmed the springs so that post-damage water replacement is required under the section.

[3] As to the first issue, the plain language of section 1309a(a)(2) clearly supports the Board's conclusion that this portion of the statute does not authorize water resource identification as a preventive measure. That provision deals only with water replacement, not with water source identification. In addition, the language in that section referring to the impact of mining on water supplies is cast in the past tense. It applies only to any water supply "which has been affected." The common dictionary definition of "replace" is "to place again" or "put back in place," *The American Heritage Dictionary of the English Language* (1981). Thus, by using the word "replace," the section requires restoration rather than prevention. In short, there must be a showing that a water supply has been affected by underground coal mining operations for the statute to impose a requirement of replacement. Although Water Users advocate reading section 1309a to authorize preventive measures to protect water resources, the plain language of the statute does not lend itself to that construction,

2. This section was added by the Energy Policy Act of 1992, Pub.L. No. 102–486, § 2504(a)(1), 106 Stat. 2776, 3104 (1992).

nor have Water Users identified any authority which persuasively supports that reading.[3]

[4] With regard to the second issue, the evidence also justifies the Board's refusal to require water replacement as a remedy for past damage. During the proceedings, Water Users asserted that Co–Op's mining has contaminated and reduced the flow of water from the springs, which they claimed are hydrologically connected to the mine. At the hearing the Board received evidence from Water Users supporting their theory of an interconnected water system joining the permit area and the springs, and from Co–Op and the Division supporting the contrary theory that the springs and the permit area are in separate water systems. The Board found that there was no connection, and that Water Users had failed to prove that Co–Op has in fact damaged the springs. On this appeal, Water Users do not argue that the Board's factual finding is not supported by sufficient evidence. Given Water Users' failure to establish that water sources "have been affected" by "underground coal mining operations," the Board correctly concluded that section 1309a does not apply.

III

The second issue we review concerns the propriety of the Board's making findings of fact and conclusions of law related to the Blind Canyon seam when the issue before the Board was whether to permit mining in the Tank seam. At the beginning of the hearing on Water Users' petition, the Board considered what evidence it would allow. The Board ruled that any evidence presented must be relevant to the proposed Tank seam operation, although evidence with regard to Co–Op's existing mining activities—e.g., those in the Blind Canyon seam—could be offered as background or foundation. During the hearing Water Users introduced a broad range of evidence about the geology and hydrology of the permit and spring area, including evidence relating to the Blind Canyon seam. Water Users argued that this evidence was relevant to the effect of mining the Tank seam for several reasons, all of which in some way relied on the theory that the Blind Canyon seam and the springs were part of a single connected water system. Despite multiple objections by Co–Op and the Division, none of Water Users' offered evidence was excluded as irrelevant. After Water Users concluded their evidentiary case, Co–Op and the Division responded with evidence showing that the springs and the coal seams were in fact in separate water systems and that as a result neither the past nor the proposed future mining activities could affect the springs.

[5] Against this background, Water Users challenge the Blind Canyon findings on the ground that they exceed the Board's jurisdiction, violated their right to due process, and are arbitrary and capricious. We first discuss the jurisdictional argument: Water Users assert that the Board exceeded its jurisdiction when it made the Blind Canyon findings and conclusions, reasoning that because administrative agencies have only the jurisdiction conferred by statute, and because the statutes indicate that the scope of a Board hearing is set by the hearing notice, any issue not included in the notice is beyond the Board's jurisdiction. They urge that because the hearing notice referred only to the Tank seam and because the Board ruled that the scope of the hearing would be limited to the Tank seam, the Board lacked power to make the contested Blind Canyon findings and conclusions.

[6–8] The jurisdictional argument is without merit. The requirement of notice under

3. Water Users suggest in their reply brief that the legislative history of the Surface Mining Act supports this proposition, but the case they cite merely states that the Act is generally aimed at the cumulative and long-term effects of mining. (Citing *National Wildlife Fed'n v. Lujan*, 21 Envtl. L. Rep. (Envtl.L.Inst.) 20125, 20128, 1990 WL 134495 (D.D.C.1990).) The only other authority offered on this point is a state case issued before the enactment of section 1309a which was decided under a state scheme that expressly gave mine operators the option to provide replacement water rather than preventing harm to water sources, all in the context of a specific mining operation which was expected to damage at least some water resources. *See Citizens Organized Against Longwalling v. Division of Reclamation*, 41 Ohio App.3d 290, 535 N.E.2d 687, 695–96, 699 (1987).

the argument Water Users assert goes to jurisdiction over the parties, not over the subject matter. 2 Am.Jur.2d *Administrative Law* § 288 (1994) (because notice goes to personal rather than subject matter jurisdiction, it may be waived). Subject matter jurisdiction, on the other hand, goes to the competence of a body to resolve a certain dispute. *See Salt Lake City v. Ohms*, 881 P.2d 844, 852 (Utah 1994) ("Subject matter jurisdiction is the authority and competency *of the court* to decide the case." (internal quotation marks omitted)). It is clear that in ruling on the ultimate issue of the permit revision for the Tank seam, the Board had subject matter jurisdiction. *See* Utah Code Ann. § 40–10–2 (1993 replacement) (Board intended to have jurisdiction over coal mining regulation under Surface Mining Act); *id.* § 40–10–6(4) (granting Board authority over coal mining permit approval). If the contested findings were in any way relevant to the issues before the Board, they were within the Board's authority to make. As the discussion below illustrates, the findings and conclusions were relevant to the Board's rulings on the ultimate issues.

[9] Water Users' claim that the challenged findings harm them is more accurately expressed by their due process challenge. At root, this complaint is that because they did not expect the Board to make findings and conclusions about the Blind Canyon seam (the scope of the hearing having been limited to the Tank seam by notice and ruling), they effectively will be foreclosed from opposing the renewal of the Blind Canyon permit without ever having an adequate opportunity to litigate those issues. In other words, they were not given adequate notice of or an adequate hearing on Blind Canyon seam issues and therefore were deprived of due process by the issuance of findings on those issues.

[10] The record does not support this claim. The arguments presented by Water Users at the hearing demonstrate that Water Users considered evidence relating to the Blind Canyon seam to be relevant to the ultimate issue of mining in the Tank seam. For example, Water Users urged the Board not to limit its consideration to "those aspects of the revision that are new." Although Water Users later argued to the Board that the Blind Canyon evidence was presented only to provide context and background for the Tank seam evidence, a review of some of the arguments they presented at the original hearing shows otherwise. In the course of the hearing, Water Users adduced evidence in support of the arguments that (1) water traveling through faults and cracks would come from above the Tank seam, pick up contaminants in the Tank seam, and proceed down through the Blind Canyon seam and into the springs; (2) water pumped up from the Blind Canyon seam for use in Tank seam mining would either be taken out of the mine with coal or carry contaminants with it back down to the Blind Canyon seam; (3) the permit revision application and the Division's evaluation of the application failed to satisfy statutory and regulatory requirements because they did not recognize and address damage already caused to the springs by mining; and (4) applicable federal law requires the provision of replacement water to ameliorate the damage done to the springs.[4]

These arguments are directly relevant to the ultimate issue: The first two arguments claim that mining operations in the Tank seam will cause direct harm to the springs, while the second two offer indirect reasons why the Tank seam permit revision should not be approved or should be modified before approval. In turn, the validity of these objections to the permit revision depends on

4. Water Users also raised two other major arguments: (1) that granting the permit would extend the life of the overall mining operation and therefore extend the duration of the harm caused by the existing mining operations; and (2) that the construction of a vehicle ramp from the Blind Canyon seam up to the Tank seam would result in the transfer of contaminants from the upper to the lower seam (and from the lower seam to the springs). The first argument ultimately lacks substantial relevance because, as the Board observed in its findings, denial of the permit revision would not end existing mining operations. The second argument was largely disposed of during the hearing, when it was established that no vehicle access between the levels was in fact planned. We note that even though the Board disposed of these arguments on other grounds, the Blind Canyon findings still serve to buttress the Board's rejection of them.

conclusions about the nature of the Blind Canyon seam—what relationship there is between the Tank and the Blind Canyon seams and whether a hydrologic link exists between the Blind Canyon seam and the springs. Far from being caught by surprise by the Board's consideration of Blind Canyon seam issues and evidence in deciding whether to approve Tank seam operations, Water Users actively supported the use of such evidence during the hearing and in their post-hearing memoranda. Furthermore, Water Users have adopted an argument before this Court which makes Blind Canyon seam conditions relevant: In support of their request for replacement water, Water Users renew to this Court the claim that pumping water from the Blind Canyon seam to the Tank seam for mining purposes will adversely affect the springs. Since that result follows only if water in the Blind Canyon seam eventually makes its way to the springs, that assertion alone would make the hydrology of the Blind Canyon seam and its relationship to the springs relevant.

In sum, Water Users presented arguments and evidence in the Tank permit revision proceedings that related to Blind Canyon seam conditions. The Board considered all the evidence presented and ruled on two ultimate issues: whether to allow Tank seam mining at all and whether to require Co–Op either to provide replacement water to remedy the claimed harm to the springs or to identify replacement water sources.[5] That the Board might have disposed of these ultimate issues on a narrower set of facts does not make it improper or unfair to include additional or alternative findings that respond to the bulk of the parties' argument and evidence and that give additional support for its decision. Water Users' right to notice and a fair hearing was not violated.

[11] Water Users' claim that the Board acted arbitrarily and capriciously in using evidence relating to the Blind Canyon seam in making its findings and conclusions depends upon the irrelevance of the evidence to the issue to be decided. Because we have concluded that the evidence was relevant, that claim also fails.

Affirmed.

ZIMMERMAN, C.J., and HOWE, DURHAM and RUSSON, JJ., concur.

5. Whatever the effect of the contested findings and conclusions may be on Co–Op's pending permit renewal application, the Board did not purport to resolve the renewal issue in its order.

John CHATTERTON, Plaintiff and Appellee,

v.

Joseph L. WALKER, Defendant.

State Farm Mutual Automobile Insurance Company, Intervenor and Appellant.

Nos. 950129, 950382.

Supreme Court of Utah.

March 7, 1997.

Rehearing Denied May 21, 1997.

Insured brought action against uninsured motorist, and carrier moved to intervene. The District Court, Provo County, Ray M. Harding, Jr., J., entered default judgment against motorist, denied carrier's motion to set aside default judgment, and denied carrier's motion for protective order. Carrier appealed. The Supreme Court, Stewart, Associate C.J., held that: (1) carrier was entitled to intervene to dispute uninsured motorist's liability and damages, and (2) information sought by interrogatories was irrelevant.

Reversed and remanded.

1. Parties ⇐40(7)

Uninsured motorist (UM) carrier was entitled to intervene in insured's tort suit and contest liability of uninsured motorist; carrier

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BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH	**CLOSING ARGUMENT** Docket No. 95-025 Cause No. ACT/015/025

INTRODUCTION

Co-op incorporates by reference its Permit, with all attachments, exhibits, addenda and revisions, including all material relating to hydrology, as if fully set forth here.

This matter is before DOGM on Water Users' objection to Co-op's automatic five-year permit renewal. Water Users contend Co-op's permit should not be renewed, or should be modified to include additional provisions relating to replacement of water sources. Co-op's entitlement to permit renewal is governed by Utah Code Ann. §40-10-9(4)(a), which provides:

> Any valid permit issued pursuant to this chapter shall carry with it the right of successive renewal upon expiration with respect to areas within the boundaries of the existing permit. The holders of the permit may apply for renewal, and the renewal shall be issued (but on application for renewal the burden shall be upon the opponents of renewal), subsequent to fulfillment of the public notice requirements of Sections 40-10-13 and 40-10-14 unless it is established that and written findings by the division are made that:
> (i) The terms and conditions of the existing permit are not being satisfactorily met;
> (ii) The present surface coal mining and reclamation operation is not in compliance with the approved plan;
> (iii) The renewal requested substantially jeopardizes the operator's continuing responsibility on existing permit areas;
> (iv) The operator has not provided evidence that the performance bond in effect for the operation will continue in full force and effect for any renewal requested in the application as well as any additional bond the division might require pursuant to Section 40-10-15; or
> (v) Any additional revised or updated information required by the division has not been provided.

The Board has adopted rules implementing this provision. *See* R645-303-233.100 to 233.200.

Water Users have the burden to prove Co-op is not entitled to automatic renewal. Because Water Users have failed to prove any of the above statutory exceptions to renewal apply, Co-op is entitled to renewal of its permit as a matter of law.

ARGUMENT

I. WATER USERS' CLAIMS ARE BARRED BY COLLATERAL ESTOPPEL.

At the informal conference, DOGM raised the question:

> What effect, if any, do the Board's actual findings in a case which is not this case but in a mine which is this mine, and its's the same springs and the same basic issues, to what extent is the Division controlled by those findings of fact?

[Tr.II p.191] That question is expressly answered by Utah Supreme Court decisions adopting the doctrine of res judicata and collateral estoppel.

Res judicata and collateral estoppel are the law in Utah. Searle Bros. v. Searle, 588 P.2d 689 (Utah 1978); Salt Lake Citizens Congress v. Mountain States Tel. & Tel., 846 P.2d 1245 (Utah 1992); State v. Sims, 881 P.2d 840 (Utah 1994); Sevy v. Security Title Co., 902 P.2d 629 (Utah 1995); Jones, Waldo, etc. v. Dawson, 923 P.2d 1366 (Utah 1996). The doctrine is "designed to prevent the relitigation of issues that have been fully adjudicated." State v. Sims at 843. It applies "when there has a been a prior adjudication of a factual issue and an application of a rule of law to those facts." Salt Lake Citizens at 1251-52.

Collateral estoppel, or issue preclusion, is a branch of res judicata. Sevy at 632. Collateral estoppel "arises from a [d]ifferent cause of action and prevents parties or their privies from relitigating facts and issues in the second suit that were fully litigated in the first suit." Sevy at 633 (*quoting* Searle at 690). Moreover, "Although initially developed with respect to the judgments of courts, the same basic policies, including the need for finality in administrative decisions, support application of the doctrine of res judicata to administrative agency determinations. Indeed, the doctrine of res judicata has been applied to administrative agency decisions in Utah since at least 1950. '[T] principles of res judicata apply to enforce repose when an administrative agency has acted in a judicial capacity in an administrative proceeding to resolve a controversy over legal rights and to apply a remedy.' " Salt Lake Citizens at 1251 (citations omitted).

If the elements of collateral estoppel are met, DOGM must apply, and Water Users are bound by, the Board's findings on issues already litigated. Collateral estoppel has four elements. First, were the issues decided in prior adjudications identical with those in the present action? Second, was there a final judgment on the merits? Next, were Water Users parties to the prior adjudication? Finally, were the issues competently, fully, and fairly litigated? Searle at 590; Sevy at 632; Jones, Waldo at 1370. All four elements are satisfied here.

First, an identical issue in both this proceeding and the Board Tank seam hearing is whether Co-op's permit area and Big Bear and Birch Springs are hydrologically isolated. Another identical issue in both proceedings is the adequacy of baseline and other data in Co-op's permit. Yet another identical issue is whether Co-op must prospectively identify a replacement water source.

Second, Utah Code Ann. Section 63-46b-16(1) provides, "The Supreme Court ... has jurisdiction to review all final agency action ...." On June 13, 1995 the Board issued its final order, finding that there was no hydrological connection between the permit area and the springs, that Co-op's baseline and other permit data were adequate, and that Co-op is not required to identify replacement water sources. Water Users petitioned the Utah Supreme Court to review the Board's order. On December 31, 1996 the Utah Supreme Court affirmed the Board's Order. Castle Valley Special Service Dist. V. Utah Board of Oil, Gas & Mining, 307 Utah Adv. Rep. 10 (December 31, 1996). The Board's Order, affirmed by the Supreme Court, is a final judgment on the merits.

Next, Water Users are the same entities who objected to Co-op's Tank seam application.

Finally, the issues were fully and fairly litigated. Water Users argued to the Utah Supreme Court that the Board erred in failing to require Co-op to identify a replacement water source, and that they did not have an adequate opportunity to litigate the hydrological connection *vel non* between Co-op's permit area and the springs. (Water Users did not challenge the adequacy of Co-op's baseline and other data on appeal.) As to the hydrology issue, the Court reviewed the record, rejected Water Users' argument, and expressly held not only that Water Users had full notice and an opportunity to be heard, but that Water Users actively litigated the issues:

> Far from being caught by surprise by the Board's consideration of Blind Canyon seam issues and evidence in deciding whether to approve Tank seam operations, Water Users actively supported the use of such evidence during the hearing and in their post-hearing memoranda.

Castle Valley, 307 U.A.R. at 13. Water Users had also full opportunity to litigate the adequacy of Co-op's baseline and other data in Co-op's permit. The requirements regarding replacement water were a matter of statutory construction, and the Court held the Board had construed the statute correctly. Those issues were competently, fully, and fairly litigated.

The purpose of collateral estoppel is to protect a litigant from the burden of multiple relitigation of identical issues, and to promote judicial economy, by applying a rule of law that forestalls repetitive litigation of the same issues. There must come a time when DOGM finds enough is enough, and applies collateral estoppel to bar further trial on issues already resolved by

DOGM, the Board and the Utah Supreme Court. That time is now. The springs are hydrologically isolated from the permit area. Co-op's baseline data are adequate. Co-op need not identify a replacement water source. The Utah Supreme Court has affirmed the Board's holdings, and Utah law clearly holds that Water Users are barred by collateral estoppel from retrying those issues. Co-op asks DOGM to include in its decision a specific ruling that collateral estoppel applies to bar further litigation of those issues, in this and in all future proceedings before DOGM.

II. PETITIONERS HAVE NOT MET THEIR *PRIMA FACIE* BURDEN OF PROOF.

Under U.C.A. §40-10-9(4)(a), Co-op is entitled to renewal of its permit as a matter of law unless Water Users affirmatively prove:

(i) The terms and conditions of the existing permit are not being satisfactorily met;
(ii) The present surface coal mining and reclamation operation is not in compliance with the approved plan;
(iii) The renewal requested substantially jeopardizes the operator's continuing responsibility on existing permit areas;
(iv) The operator has not provided evidence that the performance bond in effect for the operation will continue in full force and effect for any renewal requested in the application as well as any additional bond the division might require pursuant to Section 40-10-15; or
(v) Any additional revised or updated information required by the division has not been provided.

Unless Water Users offer *prima facie* proof in their case in chief, sufficient to overcome the evidence already in the record supporting renewal, Co-op is entitled to have its permit renewed without any further evidence. The record reveals Water Users failed to meet their burden to prove either that any permit term or condition is not being satisfactorily met; or that Co-op's present operation violates its approved plan; or that renewing Co-op's permit would substantially jeopardize Co-op's responsibility on its permit areas; or that Co-op's bond will not continue in effect; or that Co-op has omitted any additional information required by DOGM.[1]

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[1] This matter raises no issue arising from an alleged surface discharge by Co-op seven or eight years ago. On their face, section §40-10-9(4)(a) and R645-303-230 do not contemplate refusing a renewal based on an alleged, but unproven, isolated permit violation in years long past, even before the last renewal. DOGM correctly ruled during the informal conference that whether in 1989-90 Co-op discharged water in violation of its permit is outside the scope of this proceeding. [Tr.II p.149-150] Whatever the merits may be at this late date as to a potential NOV, the question is irrelevant to the decision now before DOGM, which is whether to renew Co-op's permit.

To avoid undue repetition, Co-op attaches hereto and incorporates by reference, as if fully set forth here, the argument made by counsel at the informal conference, that Water Users have not met their *prima facie* burden of proof. [Tr.II p.170-190, 240-246]

III. CO-OP'S PERMIT SATISFIES THE STATUTES AND REGULATIONS.

A. The Permit Area Is Hydrologically Isolated From The Springs.

Even if DOGM should disregard the doctrine of collateral estoppel, Co-op is entitled to renewal of its permit, because the evidence proves (i) The terms and conditions of Co-op's permit are being met; (ii) Co-op's present operation complies with the approved plan; (iii) A renewal solidifies Co-op's responsibility on its permit area; (iv) Co-op's performance bond remains in full force and effect; and (v) Co-op has provided all updated information required by DOGM.

Water Users' opposition to Co-op's permit renewal rests on the premise that a single aquifer underlies both the permit area and the springs, that the aquifer reaches into the Blackhawk formation up to Blind Canyon seam, that Co-op has intercepted that aquifer, and that the springs are adversely affected as a result.

The only thing is, it just ain't so.

Water Users rely on outdated information from USGS publications, and so-called "expert" opinions that are really nothing more than rank speculation. They ignore uncontroverted site-specific facts which prove their premise false. The evidence shows:

Co-op first began mining at Bear Canyon Mine in 1981. Co-op found almost no water until December of 1989, when it first encountered water at the north end of its permit area. Until 1991 water inflow was small and often insufficient even to meet the operational needs of the mine. Except in the north permit area, what few fractures exist in the mine are dry and show no signs of water ever having moved through them.

Big Bear Spring's flow rate, as did local precipitation, began declining more than five years before Co-op first intercepted water. As the area has recovered from its drought, so has Big Bear Spring's flow rate. Present flow for Big Bear Spring are near the upper range of the spring's flow

rate data for 1978-79. Nearby surface fracturing indicates a good near-surface hydrologic connection between Big Bear Spring and Bear Creek, and that the primary recharge for Big Bear Spring is likely from Bear Creek.

Birch Spring's flow rate also began to decline about one and one-half years before Co-op first intercepted water. Birch Spring's present flow rate is also near the upper range of the historical flow data for 1978-79. Birch Spring's flow rate also appears highly dependent on how efficiently the spring collects water through an installed "french drain" from seeps along an 80-foot cliff face. Birch Spring's collection system may just need a call from Roto-Rooter.

Other water sources in the general area also declined in flow from the mid/late 1980's to the mid-1990's, began increasing in early 1995, and now are within historical norms — a pattern consistent with precipitation data, as well as the flow rates for Big Bear and Birch Springs.

The permit area is a virtual "knife edge" consisting of cliffs and steep slopes with no flat surfaces to catch and retain precipitation. This topography causes most precipitation to run off immediately, and makes any recharge from the permit area so minute as to be immeasurable.

Co-op's mining activity is bounded on the west by Blind Canyon Fault, and on the east by Bear Canyon fault. Blind Canyon Fault has a 200 foot vertical displacement, is visibly dry, is not transmitting water, and is a barrier to water flow. It is filled with gouge, which if exposed to water would dissolve and wash away, indicating the fault has always been dry. If the fault was not plugged, it would divert water away from Birch Spring and form another spring where it meets the surface 800 feet east of Birch Spring. No such spring exists, proving the fault is plugged. Blind Canyon Fault physically isolates Birch Spring from any mining activity in the permit area.

The Star Point formation contains three sandstone tongues — the Spring Canyon, Storrs and Panther members — separated by layers of Mancos shale 50 to 80 feet thick. The Mancos shale is plastic; it flows under pressure or moisture to seal internal fractures. Even if fractures once formed in the sandstone, those fractures would be sealed in the Mancos shale. The shale's hydraulic conductivity is 10,000 times lower than clay liners used in hazardous waste landfills. The Mancos shale tongues are laterally continuous within the permit area. As a result, water in the Star

Point sandstone flows horizontally but not vertically. The water in the upper aquifers moves to the outcrop, where it evaporates.

Co-op has mined the Tank, Blind Canyon and Hiawatha seams, all in the Blackhawk formation. The entire Blackhawk formation is above the Star Point formation. The Blackhawk formation contains layers of shale as well as the coal seams, which are themselves aquitards. These strata form an additional impermeable hydrologic barrier in the permit area.

Some USGS studies posit a "regional aquifer." The assumption is not based on site-specific information, and is incorrect at least in and around Co-op's permit area. The Mancos shale tongues act as confining barriers for water in the Star Point formation. The Spring Canyon, Storrs and Panther members of the Star Point formation each contain separate aquifers, unsaturated at their south end. The three aquifers have separate potentiometric surfaces, and form three hydrologically disconnected groundwater systems. No water was encountered in test holes until they reached the Spring Canyon tongue of the Star Point formation. Co-op has not intercepted water from the Star Point aquifers. The uppermost aquifer's potentiometric surface is below Co-op's mining operation. The aquifer itself is confined within the Spring Canyon member of the Star Point formation, and the upper level of the water contained in that aquifer is a hundred feet below Blind Canyon seam.

Since the aquifers are not vertically interconnected connected, water in the upper aquifers travels horizontally until it appears at the cliff faces. Moisture and efflorescence on the sandstone outcrops confirm this, not vertical flow through nonexistent fractures, is the actual mechanism for groundwater movement in the upper aquifers.

Big Bear and Birch Springs both issue from the base of the Panther (bottom) member of the Star Point formation. In contrast, the water found at the Blind Canyon seam comes from a perched aquifer in a sandstone channel in the Blackhawk formation above Blind Canyon seam. The channel is not hydrologically connected to the Star Point aquifers. The channel enters the mine from the roof, not the floor. The channel neither dips below nor interrupts the Blind Canyon seam, but does spill out in a "flood plain" lip overlying the top of the seam. The water Co-op first intercepted in late 1989 came from that flood plain lip, and stopped flowing when the lip dewatered. Co-op did

not hit the channel proper until April of 1993. Until one reaches the channel at the north of the permit area, the coal seam is dry.

Radioisotope dating establishes the channel water's age at about 1,500 years. Water in the Star Point aquifers beneath the permit area is about 950 years old, hundreds of years younger than the higher elevation channel water. Water on the west side of Blind Canyon fault at the Blind Canyon seam/channel elevation (hundreds of feet above Birch Spring's elevation) is roughly 5,500 years old, thousands of years older than water from either the channel or Birch Spring. While the mine channel water is some 1,500 years old, water from Big Bear Spring is "new" (post-atomic testing) water, less than 20 years old, perhaps only days or weeks underground, showing the water sources are not connected. The confirmed ages of the various waters are more links in the chain proving the waters are not interconnected.

As the Board already found, chemical analysis indicates Birch Spring water is chemically dissimilar from water in the mine. For example Birch Spring water tested at twice the TDS content of the channel water, and was considerably more alkaline. Increased sulfur would decrease alkalinity, yet sulfate levels were three times higher in Birch Spring than in mine water; iron concentrations were three times lower. Sodium concentrations were substantially less, while calcium, magnesium, bicarbonate and chloride levels were substantially greater.

The following are known facts, not mere supposition:

- The area began experiencing declining precipitation in the mid-1980's. Big Bear and Birch Springs began declining in flow rates directly after the drought began, years before Co-op encountered any water in its mining operation, and years before Co-op began any dewatering activity that could possibly have affected the springs..
- While the Blind Canyon seam has been dewatering, the general area has recently experienced increased precipitation, and the spring flow rates have also increased to within pre-mining norms.
- The Mancos shale tongues and the three separate Star Point aquifers, the observed surface moisture and efflorescence where the sandstone containing those aquifers outcrops at the surface, the shale and coal layers in the Blackhawk formation, the general dryness of the coal seams throughout the permit area, the known lack of significant fracturing or faulting within the permit area, and the "knife-edge" surface topography, all evidence the permit area does not recharge the springs, but is hydrologically isolated from the springs.
- The presence and characteristics of Blind Canyon Fault, including the presence of gouge in the fault and the lack of a spring where the fault intercepts the surface, establishes the fault as a hydrologic barrier between the permit area and Birch Spring.

- Chemical analysis evidences the channel and Birch Spring waters are dissimilar.
- The known characteristics of the sandstone channel, including the facts that the channel in all places is above Blind Canyon seam, that water in the north of Co-op's permit area enters from the roof and not from the floor, and the respective ages of water from the channel and aquifer waters, show that the channel water is not connected to the Star Point aquifers.
- Radioisotope dating of the waters in the area, including the channel water, the water west of Blind Canyon fault at channel elevation, the aquifers, and the springs, evidence those waters are not interconnected, and that Big Bear Spring and the channel water in particular are not connected.
- The calculated pre-mining flow rate of 1.2 g.p.m. for the channel water, which is the only significant water source ever encountered in Co-op's mining operation, is insufficient to account for the observed decreases and more recent increases in spring flow.

The only reasonable conclusion to be drawn from the evidence as a whole is the one contained in Co-op's PHC and in DOGM's CHIA, the one previously found by the Board as a fact, and affirmed by the Supreme Court — that the permit area is indeed hydrologically isolated from the springs, and that Co-op's mining operation will not cause material damage to the hydrologic balance outside the permit area.

B. Water Users' Theories Depend on Demonstrably False Assumptions.

Water Users' theories and expert "opinions" require making assumptions which ignore the known facts. Applying the facts to Water Users' theories leads to absurd results:

Elementary head (water pressure) calculations show for the decline in flow rates of Big Bear and Birch Springs to be attributable to Co-op dewatering a regional aquifer feeding the springs, Co-op would have to have hit a water table which is some 300 feet higher than where the upper Star Point aquifer is known to be, and Co-op would have to have intercepted significant water a mile or more farther south than where it did.

Calculations show the pre-mining channel flow rate was on the order of 1.2 g.p.m. The combined flow from Birch and Big Bear Springs is on the order of 200 g.p.m. If the spring water came from the channel, it would have been dewatered ages ago. That the channel still contains a great deal of 1,500 year old water shows the channel is not the source of the springs' water.

If Big Bear Spring was recharged from the permit area, water would, while traveling a short way horizontally, have to: (a) enter the ground in the permit area; (b) flow through hundreds of feet

of sandstone, shale and coal in the Blackhawk formation, which mining has proven completely dry and not materially fractured; (c) take 1,500 years to reach the sandstone channel ; (d) take an indeterminate time to percolate to the top of the Star Point formation, then through aquifers containing water at least 500 years newer than itself; (e) flow through at least two impermeable layers of shale and clay totaling 100 to 200 feet thick; then (F) appear in Big Bear Spring as water having been underground for less than 20 years. If Birch Spring was recharged from within the permit area, water would have to complete the same general obstacle course described above for Big Bear Spring; and in addition cross Blind Canyon fault, which must at the same time be both open (to permit the water to cross the fault) and closed (to prevent the water from issuing where the fault reaches the surface). It would also have to go through a perched aquifer with 5,500 year old water, and flow thousands of feet horizontally, before appearing at the surface as 1,500 year old water. It just couldn't happen that way.

Water Users' theory assumes the permit area is extensively fractured. Observations of actual conditions found in the course of mining prove that assumption is incorrect, that the area contains only a very few minor fractures, most of which are near the surface.

Since the channel water and Birch Spring water are estimated at about the same age, for the channel water to appear at the spring, the water would have to take 1,500 years to reach the channel, then travel a similar distance from the channel to the spring in virtually no time. This could not occur unless the area has almost no fractures north of the permit area, where Water Users claim a major "fracture zone" exists, but has abundant fractures in the permit area itself, which by direct underground observation is known to be untrue. If the area was fractured as Water Users claim, either the spring water would have to be hundreds of years older than the channel water, which it is not, or the channel water would have to be hundreds of years younger than it is.

Water Users' theory not only cannot account for the observed facts regarding the area's geology and hydrology, it depends for its very existence on assumptions the known facts prove to be untrue. Again, the only reasonable conclusion to be drawn from the evidence as a whole is that the permit area is hydrologically isolated from the springs.

C. Co-op's Permit Satisfies The Specific Questions DOGM Has Raised Regarding Interpretation Of The Regulations.

1. The Regulations Require More Than A *De Minimis* Impact.

The question is whether Co-op is meeting the conditions of its existing plan. The controlling law, Utah Code Ann. §40-10-11(2)(c) and R645-300-133.400, requires only that Co-op's operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The related regulations merely expound on this basic requirement. For example:

> R645-301-724.300. Each application will include geologic information ... to assist in: 724.320. Determining ... whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.
>
> R645-301-724.600. ... [T]he applicant will provide a survey that shows ... whether subsidence, if it occurred, could cause material damage or diminution of reasonably foreseeable use of aquifers or areas for the recharge of aquifers.
>
> R645-301-729.100. The CHIA will be sufficient to determine ... whether the proposed coal mining and reclamation operation has been designed to prevent material damage to the hydrologic balance outside the permit area.
>
> R645-301-742.311. All diversions will be designed to minimize adverse impacts to the hydrologic balance within the permit and adjacent areas, to prevent material damage outside the permit area ...
>
> R645-301-750. All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area ...

The regulations taken as a whole, from the initial permit application through reclamation, including hydrologic assessments in the PHC and CHIA, underground and surface operation of the mine, discharges and diversions, subsistence control, and all preventative, remedial or monitoring measures, do not require a permittee to demonstrate there will be no impact on hydrology outside the permit area. Indeed, the regulations appear to assume there will be some impact. They contemplate the issuing and renewal of permits designed to minimize rather than eliminate hydrologic disturbances within the permit area, and to prevent material rather than all damage to the hydrologic balance outside the permit area.

Nothing in the regulations requires DOGM or Board action on a permit renew based on a *de minimis* impact to the hydrologic balance outside the permit area. The concept of "material damage" contemplates more than a *de minimis* impact. The regulations clearly allow the renewal

of a permit without modification even with some damage to the hydrologic balance, if the damage is less than material. Under U.C.A. §40-10-6.5(2), Board regulations may not be more stringent than the corresponding federal regulations. 30 CFR Parts 715.17, 717.17 and 817.41 also require only that mining activities be conducted "to prevent material damage to the hydrologic balance outside the permit area ..."

R645-301-731 in particular provides that DOGM may require additional measures to assure that material damage to the hydrologic balance outside the permit area is prevented. That language on its face bars DOGM from requiring a permittee to prevent even a *de minimis* impact.

Co-op sees the idea of a *de minimis* impact as not so much a question of law as one of fact. Big Bear Spring flow rates have varied greatly over the past two years, from a low of 76 g.p.m. in mid-1995 to a current flow rate of about twice that amount. The variation cannot not be accounted for by the 1.2 g.p.m. pre-mining flow rate from the sandstone channel. It fact, the variation cannot be explained at all by assuming the Panther aquifer is hydrologically connected to the sandstone channel. Obviously, some other mechanism must be a primary cause of variation in the spring. Since another mechanism, most likely variations in precipitation, must necessarily be responsible for variations on the magnitude shown, and since the evidence does not point to the channel as a likely source of spring water, it is impossible to say with any confidence that any variation ~~is~~ in spring flow is attributable to any part of the 1.2 g.p.m. pre-flow rate from the channel. With the burden of proof on Water Users, the question must be resolved in Co-op's favor. The evidence is simply insufficient to support a finding that any of the 1.2 g.p.m. would eventually make its way to Water Users' springs.

2. DOGM May Not Order Water Replacement Absent A Showing An Adverse Impact Has Already Occurred.

Water Users are not entitled to an order requiring Co-op to identify a replacement water source. Petitioners argue an unspecified future event may have some unknown impact on Big Bear Spring or Birch Spring. No one has a crystal ball, and the Regulations do not require a specific contingency plan for every possible future event. R645-301-731.800 addresses the relief Petitioners

seek, that CWM replace the water supplier of an affected land owner "where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from the surface mining activities." Even assuming Water Users qualify as owners of affected real property, they have offered no evidence whether Co-op's permit provides for compliance with this requirement. As Co-op and DOGM both pointed out to the Board in the Tank seam hearing, the permit does so provide.

The Utah Supreme Court has already construed similar statutory language against Water Users. In Castle Valley Special Services District v. Utah Board of Oil, Gas & Mining, 307 U.A.R. 10(Dec. 31, 1996) (the Co-op Tank Seam case), Water Users argued that, under 30 U.S.C. §1309(a), Co-op should be required to identify a replacement water source. The Board declined to require Co-op to do so. On appeal, the Utah Supreme Court expressly held a statutory requirement to replace water "which has been affected" by Co-op's operation "does not authorize water resource identification as a preventative measure." Id. at 11. The language on its face applies only in the past tense. "In short, there must be a showing that a water supply has been affected by underground mining coal mining operations for the statute to impose a requirement of replacement." Id. At 12. The Supreme Court also affirmed the Board's finding of fact that Water Users had failed to prove that Co-op has damaged the springs." Id. DOGM is obliged under collateral estoppel to apply that same fact here.

The Regulations do not require CWM to prove that Big Bear and Birch Springs will be completely unaffected by any possible scenario. There is no requirement even for information on water availability and alternative water sources unless DOGM finds that mining the Tank seam would cause contamination, diminution, or interruption of the springs. The evidence does not support such a finding.

PROPOSED FINDINGS OF FACT

Co-op requests that DOGS find the following facts from the evidence in the record.

The Record On Co-op's Tank Seam Application

1. In 1981 Co-op first began mining coal in Bear Canyon Mine. [Board Tank Seam hearing Transcript (hereafter Board Tr.) p.168] For about 8 years Co-op found no significant water in the mine. Before 1991 water inflow was small and often insufficient even to meet the operational needs of the mine. In 1991 Co-op first began discharging between 30 and 60 gallons per minute. [Board Tr. 184-185; Board Ex. C p.2-13, 14, Tables 2-5 & 2-6]

2. In 1993 Co-op applied for a permit revision to allow mining the Tank seam. The application included Appendix J-7, "Probable Hydrologic Consequences of Mining at Bear Canyon Mine, Emery County, Utah," and Appendix 7-N, "Revised Hydrogeologic Evaluation of the Bear Canyon Mine Permit and Proposed Expansion Areas." Water Users objected, and on December 9, 1993 participated in a DOGM informal conference. On July 20, 1994 DOGM issued a Technical Analysis which incorporated the finding in DOGM's revised CHIA that

> "The review of water source information, the graphical tracking of precipitation versus flow, the testing of the spring water and mine water quality for tritium dating, analysis of water quality chemical data using Stiff and Piper diagrams, and the known presence of three separate piezometric surfaces ... leads to a conclusion of no significant material damage to the Hydrologic Balance outside the permit area."

The Division then approved CWM's application.

3. Petitioners appealed to the Board, which held a formal evidentiary hearing. Co-op rather than Water Users bore the burden of proof at that hearing. Water Users gave evidence on their theory that mining the Tank seam would affect the springs because the permit area was rife with vertical faults and fractures, that a single aquifer underlaid the area, and that Co-op's mining operation had intercepted the aquifer and was impacting the springs — in other words, the same theory Water Users argue to DOGM in this proceeding. [Board Tr. 103-164] Co-op presented evidence to support its claim that mining the Tank seam would not adversely affect the springs

because the permit area is hydrologically isolated from the aquifer feeding the springs. [Board Tr. 207-267, 280-368]

4. The evidence showed there is no "regional aquifer" in the area. Underlying the permit area are three distinct aquifers, each separated from the others by thick layers of Mancos shale. The shale is plastic; it flows under pressure to seal internal fractures. Even if fractures are formed in the sandstone, those fractures seal in the Mancos shale, which therefore isolates the permit area from the springs. The springs discharge from the bottom aquifer. The top boundary of the upper aquifer is well below Blind Canyon seam even at the northernmost boundary. Water in the mine is from a perched aquifer above Blind Canyon seam, and is not part of the aquifer feeding the springs. [Board Tr. 208-209, 215, 223, 255-260, 284-285, 288-289, 311-313, 319-326, 346, 358-362,367-368; Ex. D p.4-8] Water Users conceded if the aquifers were not connected by faults, water from the upper aquifers would appear at the cliff faces. That is just what occurs. [Board Tr. 168-170; Ex. 14; Ex.D p.2-22 — efflorescence on sandstone outcrops shows slow groundwater movement; water evaporates on contact with the atmosphere.]

5. The permit area surface is a virtual "knife edge" with no flat surfaces to catch and retain precipitation. The steep topography causes most precipitation to run off immediately. [Board Ex.1,6; Ex.D Fig.1-1,2-3] Tritium tests proved Big Bear spring water is of a different age, and therefore hydrologically isolated, from water in the mine. [Board Tr. 287-288, 368] A major fault, Blind Canyon Fault, was shown to physically isolate Birch Spring from the permit area. [Board Tr. 212-213, 265-267, 293-294, 365-366] Chemical testing also indicated Birch Spring is hydrologically isolated from Co-op's mining operations [Board Tr. 290, 303-304, 326-327, 367; Board Ex.18; Ex. D p.2-25,31-34,39

6. DOGM carefully reviewed Co-op's application and found (a) the application was complete and accurate; (b) Co-op had complied with all requirements of the state program, (c) Co-op's permit had the baseline data required for approval of the permit; (d) the springs are hydrologically disconnected from the permit are; and (e) the proposed operation was designed to

prevent material damage to the hydrologic balance outside the permit area. (Co-op's present permit is no less complete.) [Board Tr. 368-379, 410-411, 415, 417-418]

7. On June 13, 1995 the Board issued its Order upholding DOGM's approval of Co-op's application to mine the Tank seam, incorporated by reference as if fully set forth here. Water Users appealed to the Utah Supreme Court, which in a December 31, 1996 Opinion affirmed the Board's Order in its entirety. Under the doctrine of collateral estoppel [Point I *infra*],DOGM is bound by the Board's Order and the Utah Supreme Court's Opinion affirming the Order.

Co-op's Permit Area

8. Co-op has mined the Tank, Blind Canyon and Hiawatha seams, all in the Blackhawk formation. The coal is an aquitard. There is no hydrologic connection between the coal seams. [Tr.III p.49, 58-59] The Blackhawk formation rests on the Spring Canyon (upper) member of the Star Point formation. The Star Point formation contains three sandstone tongues — the Spring Canyon, Storrs and Panther members — separated by layers Mancos shale 50 to 80 feet thick. The Mancos shale tongues are laterally continuous within the permit area. The Blackhawk formation also contains many layers of shale as well as the coal seams. [Tr.III p.129, 162, 175, 238, 283; Ex. C-7] These strata form a horizontal barrier between the Blackhawk formation and the Star Point Panther member. [Tr.III p.129, 157; Ex. C-7]

9. Co-op's mining activity is bounded on the west by Blind Canyon Fault, and on the east by Bear Canyon fault. [Tr.III p.137] Blind Canyon Fault is visibly dry [Tr.III p.34-36, 92, 139], is a barrier to water flow, not a conduit for water, and is not transmitting water. [Tr.III p.43-44, 49, 115,276] The Blind Canyon Fault is filled with gouge, which if exposed to water would dissolve and wash away, further indicating the fault has always been dry. [Tr.III p.35, 115; Ex. C-6] There is no water coming into the mine at the Bear Canyon fault. [Tr.III p.270]

10. Sandstone may fracture in response to tectonic forces. Shale is plastic — it flexes, and does not fracture at the same rate as sandstone. What fractures do occur in the shale seal when exposed to moisture or pressure. [Tr.III p.140-141, 217] The shale's hydraulic conductivity is 10^{-11} to 10^{-12} cm/sec., a million times less than sandstone, and 10,000 times lower than clay liners

used in hazardous waste landfills. [Tr.III p.213-214] As a result, water in the Star Point sandstone flows not vertically but horizontally until it reaches the surface. [Tr.III p.147-148, 190, 192] The water in the upper aquifers moves to the outcrop, where it evaporates. [Tr.III p.193-195] Observations during the October 17, 1996 mine site visit confirmed the presence of moisture at the exposed sandstone faces, showing the water in the upper aquifers indeed flows not vertically, but horizontally until it discharges by seeping out and evaporating at the outcrop.

11. Some USGS studies have assumed a "regional aquifer." The assumption was not based on site-specific information, and is incorrect at least in and around Co-op's permit area. [Tr.III p.87-88] The Mancos shale tongues act as confining barriers for water in the Star Point formation. [Tr.III p.131] Each of the three aquifers has a separate potentiometric surface. [Tr.III p.132, 174] They form three hydrologically disconnected groundwater systems. [Tr.III p.241] Test holes have established there is no water in the Blackhawk formation; no water was encountered until the test holes reached the Spring Canyon tongue of the Star Point formation. [Tr.III p.247] The uppermost potentiometric surface is in the Spring Canyon sandstone, well below the Blackhawk formation where the coal seams are located. [Tr.III p.219; Ex. C-7]

12. The Star Point sandstone water flows generally southward. [Tr.III p.199] Recharge occurs northward outside the permit area. [Tr.III p. 201, 217, 243] The Tank seam is completely dry throughout. [Tr.III p.8, 53-54] The Blind Canyon seam has been extremely dry. Co-op found almost no water until December of 1989, when it intercepted water at the north end of its permit area. [Tr.III p.8,12,30] That water is in the Blackhawk, not the Star Point formation. [Tr.III p.240] Except in the north permit area, what few fractures exist in the mine are dry and show no signs of water ever having moved through them. [Tr.III p.139-140] The water Co-op encountered in the Blind Canyon seam comes down from the roof, not up from the floor. [Tr.III p.33-34, 137, 158]

13. Co-op has not intercepted water from the Star Point aquifers. [Tr.III p.101] The water in the mine comes from a perched aquifer in a sandstone channel above Blind Canyon seam. [Tr. I p.103; Tr.III p.37-38, 90, 133-136, 156; Ex. C-5] The channel is not hydrologically

connected to the Star Point aquifers. [Tr.III p.49, 247] The channel enters the mine from the roof, not the floor. [Tr.III p.80, 247] The channel does not interrupt or dip below the Blind Canyon seam, but does spill out in a "flood plain" lip over the top of the seam. [Tr.III p. 133-136] Until one reaches the channel, the coal seam is dry. [Tr.III p.56] The water Co-op first intercepted in late 1989 came from the channel's flood plain lip. [Tr.III p. 104-105, 233] Co-op did not hit the channel itself until April of 1993. [Tr.III p.202; Ex. C-1]

14. Radioisotope dating establishes the channel water's age at about 1,500 years. Water in the Star Point aquifers beneath the permit area is about 950 years old, hundreds of years younger than the higher elevation channel water. Water on the other side of Blind Canyon fault (hundreds of feet above Birch Spring's elevation) is roughly 5,500 years old, thousands of years older than the channel water. [Tr.III p.40, 70, Tr.III p.39, 51, 248; Ex. C-3]

15. Calculations using the age and intra-mine flow show the pre-mining channel flow rate was on the order of 1.2 g.p.m. This is minuscule considering the volume of water contained in the aquifer. [Tr.III p.45-46; Ex. C-5] Flow through the channel is blocked by Blind Canyon fault on the west, by Bear Canyon fault on the east, and by Blind Canyon seam below. [Tr.III p.58-59, 92-93] Before mining, that 1.2 g.p.m. of water may have been discharging to a spring in the permit area, to a creek, or to evaporation at the outcrop. [Tr.III p.46]

16. If the springs were fed from the channel, they would have dewatered the channel ages ago. [Tr.III p.83] The fact that the channel still contains a great deal of water further indicates the channel is not the source of the springs' water.

Big Bear And Birch Springs

17. Big Bear Spring and Birch Spring both issue from joints in the base of the Panther member of the Star Point formation. [Tr.I p.99; Tr.III p.139, 159, 240]

18. Comparisons of spring flow and precipitation data show Big Bear Spring responds to precipitation. [Tr.III p.189, 207-209; Ex. C-10] According to Water Users' own data, Big Bear Spring's flow rate, as did local precipitation, began declining as early as 1984, five or more years before Co-op first began intercepting water in its mining operation. As the area has

recovered from a ten-year drought, Big Bear Spring's flow rate has also recovered, from a low of 76 g.p.m. in mid-1995 to 148 g.p.m. in late 1996. Present flow rates are well within the range of the spring's flow rate data for 1978-79, taken before the local drought and before Co-op began mining. [Tr.1 p.30; Tr.III p.206-207; Ex. 4 Plates 2, 7; Ex. C-10]

19. Water Users have not tested the water in Bear Creek. [Tr.III p.298] Nearby surface fracturing indicates a good hydrologic connection between Big Bear Spring and Bear Creek. The primary recharge for Big Bear Spring is likely from Bear Creek. [Tr.III p. 50, 89, 116, 162]

20. Birch Spring is some 800 feet to the west of Co-op's permit area and is physically separated from the permit area by two major faults, including Blind Canyon fault, which acts as a barrier to water flow. [Tr.III p.138; Ex. 5; Ex. C-8, C-9; observations from site visit]

21. Birch Spring flow is also precipitation related. [Tr.III p.189] Its flow rate began to decline in mid-1988, about one and one-half years before Co-op first began intercepting water. [Ex. 4 Plates 1, 7] Birch Spring's flow in recent years is near the upper range of the historical flow data for 1978-79. [Tr.III p.209-211. Ex. C-11]

22. The Board's June 13, 1995 Order specifically found Little Bear Spring was not useful as a control. Even so, Water Users' data show Little Bear and Upper Tie Fork Springs declined in flow from the mid/late 1980's to the mid-1990's, and began increasing in early 1995 — a pattern similar to that shown in the precipitation data, and the flow rates for Big Bear and Birch Springs as well as Huntington Creek. The common factor is the area's weather pattern. [Ex. 4 Plates 1, 2, 3, 4, 6] The spring hydrographs show the beginning declines in flow at the springs were immediately preceded by spikes (or, in Plate 3, a discontinuity) in mid-1988. At the time Co-op had not encountered or begun discharging water from the mine. Water Users' expert testified the spikes were likely caused by an earthquake known to have occurred in the area just prior to the spikes and resulting drop-offs in spring flow. [Tr.II p.107; Ex. 4 Plate 5]

23. If the decline of Big Bear and Birch Springs was the result of Co-op ~~denaturing~~ dewatering a regional aquifer feeding the springs, Co-op would have hit water where the potentiometric surface first intersects the coal seam. For this to have occurred the upper water table would have been

about 300 feet higher than it actually is, and Co-op would have intercepted significant water a mile farther south than where it did. [Tr.III p.220-222]

The 1989-90 Spring Anomalies

24. In 1990 Co-op applied for a permit renewal, which Water Users opposed due to alleged contamination of the springs and failure to safeguard against future contamination. [Water Users' 03/13/91 and 03/21/91 memoranda] Water Users relied on the same alleged anomalies in the springs now being raised again by Water Users in this proceeding. DOGM conducted an informal conference, and on May 20, 1991 entered an Order which provides in part:

> FINDINGS OF FACT
>
> 4. Geologic and hydrologic evidence provided by the parties suggests that the potentiometric surface of the Blackhawk-Star Point aquifer is below the level of current mining in the Bear Canyon Mine.
>
> 5. The necessary information is available for evaluation of the hydrology within the existing Bear Canyon Mine workings.
>
> 6. There is no evidence that mining within the presently permitted coal seam in the Bear Canyon Mine will impact the potentiometric surface of the Blackhawk-Star Point aquifer.
>
> CONCLUSIONS OF LAW
>
> 19. Protestants have set forth factual contentions to support their allegations that four of the five statutory exceptions to renewal are present. The Division concludes that protestants have failed to support these allegations.
>
> ORDER
>
> 22. The Permit for Co-op Mining Company's existing mining operation at the Bear Canyon Mine (ACT/015/025) is hereby renewed ....

Water Users did not appeal DOGM's Order.

25. DOGM has already ruled in this proceeding that whether Co-op discharged water in violation of its permit is outside the scope of this proceeding. [Tr.II p.150]

26. There is no limit to the amount of water that can be discharged under a permit. There never has been such a limit to Co-op's permit. [Tr.III p.292] Co-op did not have a water discharge point by the ventilation fan. Co-op did not discharge water into the old workings in the summer of 1989. Co-op did not even encounter water in the mine until December of that year. [Tr.III p.292, 294] The spring anomalies remains a mystery which will likely never be resolved.

CONCLUSION

Based on the above, Co-op asks DOGM to deny the relief sought by Water Users, and to reaffirm its prior decision to approve Co-op/s permit renewal.

DATED this 8 day of May, 2997.

Attorney for Co-op Mining Company

CERTIFICATE OF SERVICE

I certify on May 8, 1997 I caused the above document to be served by first class mail to the following:

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downgradient. And if it builds up with water, it's going to start seeping to the surface.

MR. MAYO: And the specific impacts in the mechanics to Birch Spring and how they may differ from those to Big Bear Spring?

THE WITNESS: I think the differences to Big Bear Spring is that you're diverting water away from the western side of the mine and the northern part of the mine that normally would be recharging the fracture zone in that area. So you're essentially moving it away from a recharge area for the spring and putting it into Bear Canyon or the lower Bear Canyon here in Huntington Canyon.

MR. MAYO: Okay.

MR. CARTER: Thank you. Mr. Hansen.

MR. M. HANSEN: Co-op Mining Company moves for a decision to overrule the water user's objection and deny all the relief water users seek and to affirm their prior decision to approve the renewal of Co-op's mining permit as it exists.

The basis for this motion is this: The water users claim to be parties with an interest that is or may be adversely affected by the mining activity and on that basis brought their objection and requested an informal conference. They are entitled to have their

with one exception, was the same information that was already in the record, was already submitted to the Division, either at the time of Co-op Mine's last permit renewal or at the time that the Division and subsequently the Board decided to approve Co-op Mine's application for a significant permit revision to permit mining the tank seam.

So with one exception, all of the evidence that Mr. Leamaster offered was already in the record. None of that information should be sufficient to justify the Board changing its mind because it was already before the Board when it made its decision.

The one exception is Mr. Leamaster's testimony that Big Bear now is flowing at approximately 148 gallons per minute. He testified that in May of 1995 that that water flow got as low as 76 gallons per minute. And he testified before the board in October of 1994 that at that time that the water flow level in Big Bear Spring was I believe 118 gallons per minute.

In other words, Mr. Leamaster's testimony on the water flow out of Big Bear Spring has established that the water level has increased. It has increased 25 percent over what it was two years ago this same season. It's doubled over what it was this summer. And all the time the water was continuing to dewater in the mine.

already been established. The water users have done nothing to come forward and disprove that particular finding of the Board. The mine should not have to go forward and reprove that same point that they've already proved once.

We have heard somewhat again about this incident that occurred in late 1989, early 1990, where there was an anomaly in the water flow, the water quantity and the water quality out of Birch Spring. Mr. Nielsen has given an opinion that that resulted from discharge from one of the mine portals. He's also stated that probably that water came from Trail Canyon.

Again that evidence is inconclusive. We still don't know based on the evidence that has been submitted what caused that anomaly, whether it was from the old abandoned Trail Canyon Mine seams, in which case it is totally irrelevant, or whether it came from the current mining canyon operation. And again the only thing we have at this point is assumptions, speculations and opinions on that point.

But let's assume that the argument that the water users are trying to make on that point is true, for the sake of argument. If we assume that in November or December of 1989 the Co-op Mine did discharge water out of that portal, what is the consequence to the Division's

decision today whether or not to renew the permit? That's the question.

Assuming what the water users claim to be the case, that was not an event that was directly -- would have been directly resulting from the mining activities, but it would have been a single decision by a person or persons, identities unknown, to do something that would constitute a violation of the permit. The remedy would be to ~~elicit~~ issue a violation and deal with it that way.

There's nothing justifying the particular relief that the water users are seeking in this objection. Even assuming that what they say to be true, it just is not relevant to what is going on now.

Furthermore, that incident was before the Division at the last time that the Division approved the permit renewal. The Division was aware of the incident, but as now we are still not clear on the cause. The Division was also aware of that incident at the time of the tank seam renewal. The Board was also aware of that incident at the time of the tank seam renewal. Nothing since then has come forward to justify changing either the Division's or the Board's mind on that point.

Some of the things that the Board did find in that tank seam hearing was that Co-op's evidence on

the specific geologic characteristics of the permit area was more credible than the water user's testimony and evidence on that point. The evidence is the same. It has not been changed since that point.

The Board has already found that evidence to be more credible, with that finding, that the same evidence this time cannot be found to have met the water users' burden of proof on that point.

The Board also found that tritium testing showed the water in the mine predated the nuclear age well water from Big Bear Spring, confirming the mine is hydrologically isolated from Big Bear Spring. That is a specific finding of fact that the Board made at the tank seam hearing.

We have heard additional information regarding the tritium dating during this proceeding. The information is new only in that it comes from analyzing new water sources. The results and the findings based on that tritium information is not new. The basic tritium contents discovered from analyzing these new water samples is basically the same information that the Division and the Board ruled on during the tank seam hearing.

There is no evidence on tritium testing that should persuade the Division to vary its decision from

the decision the Board has already made, that the tritium testing in fact does establish that Big Bear Spring is in fact hydrologically isolated. The Board also found that chemical analysis showed that there were dissimilarities between the mine water and Birch Spring water.

We have new chemical analyses. They are new only in that the analyses are taken from new water samples. The substantive information conveyed is not new. The information regarding TDS in various elemental concentrations in the water compared to the information that was already before the Division and before the Board are not substantively different. They're certainly not different enough to justify varying from the finding that the Board has already made, that the chemical analyses do show dissimilarities between the mine water and the Birch Spring water.

Now the Board did not find that element's alone conclusive. But the Board did find that Blind Canyon fault, which is 800 feet east of Birch Spring, is a fault that does one of two things: Either it is completely plugged, in which case it would block any water from going westward and prevent the water from going to Birch Spring, or that same fault is not plugged and it's open, in which case the water would be channeled out the fault, and it would emanate at the place where

surface he referred to exists. That is his opinion. It does not comport with the facts that are already before the Division and the Board.

That opinion is contrary to the actual facts, and the fact that he has an opinion that contradicts the facts states more to his qualification to testify as an expert rather than the truthfulness and the reliability of his opinion.

Mr. Nielsen testified that in his opinion the monitoring wells that Co-op Mine has in place are inadequate. He didn't really go into very much detail why he thought they were inadequate. That is not a matter for an expert opinion to make an opinion on. It doesn't matter what he thinks; that the Division has already found those monitoring wells are adequate. The Board has already found during the tank seam hearing that those monitoring wells are adequate. We've heard nothing to this date to justify varying from that finding of fact.

Mr. Nielsen has also testified quite a bit about other springs being used as a control to compare what's going on in there to what's going on in their springs. I would point out that the Board specifically found during the tank seam hearing that the Little Bear Spring in particular is not useful as a control.

I would submit that based on that decision that the Division should go along with what the Board has already ruled, that the Little Bear Spring is not useful as a control, and based on that same ruling find that even more remote springs are even less useful as controls.

Mr. Nielsen testified that the chemical analysis that he's seen indicate that the water in the area generally emanates from the -- comes from the same recharge area. We've never disputed that fact. The question is what happens to the water after it reaches that discharge area.

The evidence is unrebutted that it goes downgradient, part of it goes clear to the bottom aquifer where it goes to the springs. Another part reaches one of the shale layers that exist in the area and goes into that aquifer. Another portion goes into the upper aquifer.

And once the water reaches all of those individual aquifers, that's where it stays. It doesn't go to the next aquifer. The actual factual evidence on that point is unrebutted.

Again I think that was partly also from the deuterium oxygen comparison that was made. The testimony was that those analyses show that the recharge came at

similar temperatures in similar locations. Again we haven't disputed that fact. The question is what happens to the water after it gets into the ground. And we've already established what happens, and the water users have not met their burden of proof that it is anything other than what has already been established.

Mr. Nielsen testified that generally, although he didn't have any site specific data, that the Menko shale permeability generally tests on the order of 10 to the minus 7 to 10 to the minus 8 feet. I did a fairly quick calculation based on Mr. Nielsen's testimony on that point.

As I said we have two Menko shale tongues between the water that the mine encounters during mining activities and the aquifer feeding the springs. Each of those shale layers is 50 feet or more in thickness. Using that permeability rate, it would take between one and 10 million years for water to go through each of those shale layers.

So we are looking at a minimum of two million years for water to percolate down from the water that is encountered in the mine to the aquifer that is feeding the springs, making it difficult to think that the water is going to make it from the mine level to the spring level in our lifetimes. And again this is based

on Mr. Nielsen's own testimony.

The flow diagrams in Exhibit 4, I think particularly Plate 7, again I would submit Mr. Nielsen argued, makes some arguments about what he thought that those lines indicated.

I would submit that an examination of those lines, particularly tracing the baseline data, shows that even Little Bear Spring, which is not useful as a control, as well as Big Bear and Birch, began having a slow but steady decline, and a similar decline back in 1986 at least, and possibly before that, possibly even before mining activity began in the area; that those lines do track the decrease in precipitation flow; that they establish that the reduction in the water results from the reduction in precipitation in the area, not from mining activity.

And I would ask that the Division try to do some smoothing on those lines to establish that in fact the lines even in Little Bear establishes a slow but steady decline in the area resulting from decreased precipitation, and certainly in Little Bear not from mine activity. And by the same argument, not from mining activity in the other two springs too.

Mr. Nielsen stated his opinion that the mine's PHC has no baseline monitoring program. That was

the cause of the water dropoff.

Mr. Appel argued that the tank seam hearing and the findings out of that hearing aren't binding here. We haven't argued that they are. I think we've already explained and covered what the impact of those findings should be: As Mr. Appel said, that the water users have taken new samples, they've provided new information.

But as I already pointed out, the information, both the chemical analyses and the tritium analyses do not differ significantly if at all from the same information that we've already had before the Division and before the Board, and they confirm the findings rather than contradict the findings that were already made.

The argument has been made that we are taking what is claimed to be a unique position, that our permit is the only area in the whole region that is not heavily fractured. The only information we have regionally about the degree of the fractures is really taken from surface examinations, not from detailed underground reviews.

And conclusions that have been reached from examining the surface fractures, assumptions that have been made about how far they extend underground, our

actual experience has shown that whatever the surface fractures show you, those fractures do not permeate the area, that we do not have fractures throughout the permit area.

And I think that's about it.

MR. CARTER: Okay. Let me -- I have a couple of questions that I want to pose. I'm hoping there's chalk over there because I'm going to draw diagrams. Oh, good. Maybe I'll just start out by asking Mr. Nielsen, this may be too simpleminded, but I want to make sure I understand what people are saying.

PETER NIELSEN,

recalled as a witness, for and on behalf of the Plaintiffs, being previously sworn, was reexamined and testified as follows:

FURTHER EXAMINATION

BY MR. CARTER:

Q So this is Huntington Creek, and we have relatively I guess slightly dipping beds, because you you're saying --

A Four degrees.

Q Fine. Very slightly dipping beds.

A Almost horizontal.

Q So we've got so[illegible]ing like this, and then we have this regional aquifer. I won't call it regional aquifer. We have the lowest aquifer, which dips something like that.

A Yeah. And that's the Spring Canyon sandstone information.

Q Okay. The Spring Canyon sandstone is right at the top of the --

MR. C. HANSEN: Now the way you've drawn your line, is that the north end?

Q BY MR. CARTER: Yeah, something like that. And in general terms, the Blind Canyon seam, everyone was agreeing that the north end was getting, they were at the same elevation at some point; right?

So my question would be if you were -- and I don't mean to ask this in a pejorative sort of way, but even if you put on a real high volume pump and you drill holes and you tracked all this and you started sucking water out of this as fast as you could rather than just letting it drip in or come up from the surface, wouldn't you really have to pump like crazy to get a cone of depression big enough to affect this spring? I mean if this is -- do you see what I'm saying?

A I see what you're saying. The information I have right now is based on wells and water levels in a

preexisting mine. You don't know what premine baseline flows is in the Spring Canyon sandstone. It may have been several feet higher than it was now which was supplying that spring until it was mined into and dewatered.

Q So what you're saying is over a long period of time this could just generally depress the whole surface rather than creating a cone?

A Exactly. Lines in his study that he did on East Mountain showed that this stuff happens anywhere 45 to 50 years before you establish a steady state. Typically in those you'll have high flows in the beginning, and that tapers off to some steady state flow, whatever that will be. And you'll generally depress the water table or the water service around the -- beyond and beyond the actual mining part.

That's consistent with what Lines found. That's consistent with what McHorter found in studies over in Colorado, as stated by several studies in Illinois and West Virginia, that you do dewater beyond the boundaries of the mine to some steady state point.

Q That would be the areas that would be below the piezometric surface, wouldn't this?

A Yes.

Q If all of this -- if the coal were here and